

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (previously presented) A welding assistance method for a user to exploit information available at a remote computer welding database in a contemplated welding operation, comprising the steps of:

the user supplying an information request to the database, the information request comprising

(a) a first indication and/or selection by the user of a type of contemplated heat treatment process,

(b) a second indication and/or selection by the user of at least one type of technical problem to be solved arising or likely to arise during implementation of the contemplated heat treatment process, and

(c) a third indication and/or selection by the user of at least one parameter relating to a configuration of the contemplated heat treatment process;

the database processing of at least some of the first, second, and third indications or selections made by the user;

after the processing step, the database supplying information relating to the contemplated heat treatment process as

a proposal to the user of at least some information relating to at least one modification or at least one adjustment to be made to at least one configuration parameter of the contemplated heat treatment process so as to solve, at least partly, the type of technical problem supplied by the user in the second indication; and

the user receiving the information in the proposal and combining that information with user experience and user information to perform a welding operation of the contemplated heat treatment process by setting, modifying, or adjusting at least one parameter of the welding operation based on the information in the proposal.

2. (previously presented) Method, utilizing a remote welding computer database, for determining, setting, adjusting and/or modifying at least one parameter of a heat treatment process, comprising the steps of:

prior to beginning any heat treatment process, the user making a query to the database in the form of

a first indication and/or selection by the user of a type of heat treatment process to be implemented, and

a second indication and/or selection by the user of at least one parameter relating to the configuration of the heat treatment process, that has to be or is likely to be adjusted,

modified or set, before or during implementation of the heat treatment process of the first indication;

the database processing of at least some of the first and second indications or selections made by the user;

the computer providing a proposal to the user of at least some information relating to at least one modification or at least one setting to be made of at least the configuration parameter of the heat treatment process.--

3. (previously presented) Method according to claim 2, characterized in that it includes at least one additional step:

of displaying, storing, printing, transmitting, interpreting and/or exporting at least some information obtained from the database; and

of modifying or setting at least one configuration parameter of the heat treatment process according to at least some information obtained from the proposal.

4. (previously presented) Method according to claim 1, wherein,

the type of contemplated heat treatment process is from the group formed by cutting processes, welding processes, marking processes, heat spraying processes and combinations thereof.

5. (previously presented) Method according to claim 1, wherein, the indication or the selection is made by the user via interactive computer means.

6. (previously presented) Method according to claim 1, wherein, the indications are taken from selections shown on a computer display and user input is made on a touchscreen.

7. (previously presented) Method according to claim 1, wherein, the second indication concerns a choice of consumables.

8. (previously presented) Method according to claim 2, wherein, the second indication is at least one configuration parameter of the heat treatment process and is chosen from the voltage, the current, the feed rate of the filler wire, the speed of advance or welding speed, the nature of the filler wire or electrode, the nature of the shielding gas, its flow rate and/or its quality, the choice of solid flux associated with the wire in submerged-arc welding, the orientation and position of the welding torch with respect to the weld to be produced, the preparation and the thickness of the workpieces to be joined together or, in the case of cutting, the cutting speed and/or the gas used.

9. (previously presented) Method according to claim 1, wherein, the indications or selections made by the user comprises:

(i) a comparison of the indications or selections with reference information stored in at least one database or databank, and

(ii) a proposal of at least one solution, of an

explanation and/or of an answer to a question raised, the solution, explanation and/or answer being stored in at least one database or databank.

10. (previously presented) Method according to claim 1, wherein, the proposal is sent to a display screen allowing at least one of the welding parameters to be displayed.

11. (previously presented) A welding assistance system for assisting a user in implementation of a heat treatment process, comprising:

an information query tool allowing a user to form a technical problem query concerning

a type of heat treatment process implemented or to be implemented,

at least one type of technical problem to be solved that has arisen or is likely to arise during implementation of the type of heat treatment process, and

at least one parameter, preferably several parameters, relating to the configuration of the heat treatment process;

a welding computer comprising a welding database operatively connected to the information query tool to receive the user query and for processing the user query by interaction with the welding database to obtain a responsive information to the user query; and

an information delivery means for displaying, storing, printing, transmitting, interpreting and/or exporting the responsive information comprising at least one piece of information relating to at least one modification and/or at least one setting to be made of at least one configuration parameter of the heat treatment process so as to solve, at least partly, the technical problem.

12. (previously presented) System according to Claim 11, wherein,

the user query tool comprises a user station comprising

- a central processing unit coupled to a network card or a modem; and
- a screen allowing information to be displayed; and
- a data entry keyboard, a mouse, a touchscreen and/or a voice recognition system,

the user station interacting remotely via a network with the welding computer and the welding database.

13. (previously presented) System according to claim 11, wherein, the user query tool interacts with the welding computer via the Internet.

14. (previously presented) System according to claim 11, wherein, the user query tool comprises data transmission of a network to the welding computer.

15. (canceled).